AMENDMENTS TO THE CLAIMS

1. (Original) A method of processing an input audio stereo signal comprising two input signals, for reproduction of a processed stereo signal in an audio stereo reproduction system comprising at least one pair of loudspeaker elements, the method comprising the steps of:

a) providing a mid input signal (M) and a side input signal (S),

b) producing a left output signal for transmission to a left loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side input signal (S),

c) producing a right output signal for transmission to a right loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side signal (S) phase shifted 180°,

the method further being characterised in the step of:

- at least a part of the side input signal (S) or the mid input signal (M) in the frequency range 4 kHz - 9 kHz is phase shifted at least 45° but no more than 135° relative to the other signal prior to or at the production of the left and right output signals in steps b) and c).

2. (Original) Method according to claim 1, characterised in that at least the part of the mid input signal (M) or the side input signal (S) in the frequency range 6 kHz - 9 kHz is phase shifted at least 45° but no more than 135° with respect to the other signal.

3. (Currently Amended) Method according to claim 1 ~~or 2~~, characterised in that in steps b) and c) the mid input signal (M) is attenuated by a factor α and/or the side input signal (S) is amplified a factor ß.

4. (Currently Amended) Method according to ~~any of the claims 1-3~~ claim 1, characterised in that:

- in step a) the mid input signal (M) is obtained as the sum of a left input signal (L) and a right input signal (R), and
- in step a) the side input signal (S) is obtained as the difference of the left input signal (L) and the right input signal (R).

5. (Currently Amended) Method according to ~~any one of claims 3 – 4~~ claim 3, characterised in that the attenuation factor α is in the range - 3 dB to -15 dB.

6. (Currently Amended) The method according to ~~any one of claims 3 – 5~~ claim 3, characterised in that the attenuation factor α is in the range -6 dB to -12 dB.

7. (Currently Amended) Method according to ~~any one of claims 3 – 6~~ claim 3, characterised in that the attenuation factor α and/or the amplification factor ß is frequency dependent.

8. (Currently Amended) Method according to ~~any one of claims 1 – 7~~ claim 1, characterised in that the loudspeaker elements are closely located.

9. (Currently Amended) Method according to ~~any one of claims 1—8~~ claim 1, characterised in that the pair of loudspeaker elements consists of a pair of identical loudspeaker elements being acoustically isolated from each other, and located within less than one quarter of the shortest wavelength emitted by the elements, or, if the shortest wavelength emitted by the elements is less than 68 cm, less than 17 cm.

10. (Currently Amended) Method according to ~~any one of claims 1—9~~ claim 1, characterised in that substantially all of the side input signal (S) or the mid input signal (M) is phase shifted approximately 90°.

11. (Currently Amended) Method according to ~~any one of claims 1—10~~ claim 1, characterised in that the phase shift is accomplished by a frequency dependent filter, such as an all pass filter.

12. (Currently Amended) Method according to ~~any one of claims 1—11~~ claim 1, characterised in that the phase shift is accomplished by digital signal processing, e.g. by a Hilbert transform.

13. (Currently Amended) Method according to ~~any one of claims 1—12~~ claim 1, characterised in that the mid input signal (M) is delayed with a time corresponding to the delay of the phase shifting means.

14. (Original) Device for processing an input audio stereo signal comprising two input signals, for reproduction of a processed stereo signal in an audio stereo reproduction system comprising at least one pair of loudspeaker elements, the device comprising:

a) means for producing a left output signal for transmission to a left loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side input signal (S),

b) means for producing a right output signal for transmission to a right loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side signal (S) phase shifted 180°,

the device further being characterised in that it comprises:

c) means for phase shifting at least a part of the side input signal (S) or the mid input signal (M) in the frequency range 4 kHz - 9 kHz at least 45° but no more than 135° relative to the other signal prior to or at the production of the left and right output signals in steps a) and b).

15. (Original) Device according to claim 14, characterised in that it comprises means for phase shifting at least the part of the mid input signal (M) or the side input signal (S) in the frequency range 6 kHz - 9 kHz at least 45° but no more than 135° with respect to the other signal.

16. (Currently Amended) Device according to claim 14 ~~or 15~~, characterised in that the device in steps a) and b) is arranged to attenuate the mid input signal (M) by a factor α and/or amplify the side input signal (S) by a factor ß.

17. (Currently Amended) Device according to ~~any of the claims 14-16~~ claim 14, characterised in that the device further comprises means for providing a side input signal (S) and a mid input signal (M), and that the device is arranged to provide the mid input signal (M) as the sum of a left input signal (L) and a right input signal (R), and the side input signal (S) as the difference of the left input signal (L) and the right input signal (R).

18. (Currently Amended) Device according to ~~any one of claims 16—17~~ claim 16, characterised in that the attenuation factor α is in the range - 3 dB to -15 dB.

19. (Currently Amended) Device according to ~~any one of claims 16—18~~ claim 16, characterised in that the attenuation factor α is in the range -6 dB to -12 dB.

20. (Currently Amended) Device according to ~~any one of claims 16—19~~ claim 16, characterised in that the attenuation factor α and/or the amplification factor ß is frequency dependent.

21. (Currently Amended) Device according to ~~any one of claims 14—20~~ claim 14, characterised in that the loudspeaker elements are closely located.

22. (Currently Amended) Device according to ~~any one of claims 14—21~~ claim 14, characterised in that the pair of loudspeaker elements consists of a pair of identical loudspeaker elements being acoustically isolated from each other, and located within less than one quarter of the shortest

wavelength emitted by the elements, or, if the shortest wavelength emitted by the elements is less than 68 cm, less than 17 cm.

23. (Currently Amended) Device according to ~~any one of claims 14 – 22~~ claim 14, characterised in that substantially all of the side input signal (S) or the mid input signal (M) is phase shifted approximately 90°.

24. (Currently Amended) Device according to ~~any one of claims 14 – 23~~ claim 14, characterised in that the phase shift is accomplished by a frequency dependent filter, such as an all pass filter.

25. (Currently Amended) Device according to ~~any one of claims 14 – 24~~ claim 14, characterised in that the phase shift is accomplished by digital signal processing means, e.g. by a Hilbert transform.

26. (Currently Amended) Device according to ~~any one of claims 14 – 25~~ claim 14, characterised in that the mid input signal (M) is delayed with a time corresponding to the delay of the phase shifting means.

27. (Original) System, for reproduction of an input audio stereo signal comprising two input signals consisting of a mid input signal (M) and a side input signal (S), or of a kind from which a mid input signal (M) and a side input signal (S) are derivable, such as a left input signal (L) and a right input signal (R), comprising a pair of loudspeaker elements, the system further comprising:

a) means for producing a left output signal for transmission to a left loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side input signal (S),

b) means for producing a right output signal for transmission to a right loudspeaker in said pair, which is, or is equivalent to, the sum of the mid input signal (M) and the side signal (S) phase shifted 180°,

the system further being characterised in that it comprises:

c) means for phase shifting at least a part of the side input signal (S) or the mid input signal (M) in the frequency range 4 kHz - 9 kHz at least 45° but no more than 135° relative to the other signal prior to or at the production of the left and right output signals in steps a) and b).

28. (Original) System according to claim 27, characterised in that it comprises means for phase shifting at least the part of the mid input signal (M) or the side input signal (S) in the frequency range 6 kHz - 9 kHz at least 45° but no more than 135° with respect to the other signal.

29. (Currently Amended) System according to claim 27 ~~or 28~~, characterised in that the pair of loudspeaker elements consists of a pair of identical loudspeaker elements being acoustically isolated from each other, and located within less than one quarter of the shortest wavelength emitted by the elements, or, if the shortest wavelength emitted by the elements is less than 68 cm, less than 17 cm.